



Apple River Flowage Aquatic Plant Management Study

SPL-051-03

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Stormwater runoff, watershed contributions, water level manipulation, and riparian alterations have long been a problem for the Apple River and the Flowage. A plethora of aquatic vegetation has been the result along with high nutrients in the water column and an abundant fishery. The Apple River Protection and Rehabilitation District asked the LWRD and DNR to address the aquatic plants in an effort to craft a management strategy. The DNR and LWRD conducted two aquatic plant surveys and outlined a management plan (see attached report) as well as I&E activities described here.

Flowage residents have complained of the “nuisance weed growth” on the Apple River Flowage. Their desire for full-body contact recreation and immediate boating access has been hindered by the extent of macrophytes. While aquatic macrophytes are abundant in the shallow flowage, the perceived problem is a matter of desired use of the flowage. Three workshops were held in 2003 for Polk County residents. The workshops highlighted the benefits of aquatic macrophytes and their role in water ecosystems. Plant specimens were pulled from the local lake for viewing as well as sampling equipment. Native plant species were identified, and their role in the plant community and value for sediment stabilization and wildlife use was described. Exotic species and water quality monitoring were also a point of interest at the workshops. They were held in Luck, Amery, and Clear Lake.

Area	Location	Date of Event
Luck	McKenzie Park	June 28
Amery	North Twin Park	July 12
Clear Lake	Clear Lake Park	August 9

A total of 11 citizens attended the workshops. In lieu of a pontoon classroom described in the grant application, three interested District members climbed aboard the research vessel and visited with Jim Cahow and Jeremy Williamson for a day of plant monitoring on the Flowage. A new stand of purple loosestrife was found in the Flowage, but the information was relayed to the citizen volunteers and it was controlled immediately.

Although attendance was limited at the workshops, LWRD and DNR staff have attended numerous Apple River Flowage P&R District meetings and have stayed in contact with board members. Residents have been made aware of the natural assets in the Flowage at these meetings. However, significant public input for the purpose of developing a DNR-approvable APM has not been obtained nor strategic planning. The attached report on aquatic plants suggests methods for nuisance management and proposes several areas for sensitive area designation. There is also a proposal for an endothol treatment as a control project.

Citizens have also questioned the water level in the Flowage and the City of Amery's regulation thereof. Three volunteers collected water level and precipitation data on the Apple River. After a season of monitoring, the water level change was shown to correspond with precipitation events. The Director of Public Works for the City stated they maintain the Flowage according to the schedule and release water following rain to get the water level down.

The 2003 plant surveys are an excellent resource for future plant management analysis. It provides a baseline of species diversity, frequency of occurrence, and top habitat areas for comparison to future years.

A continuation of this project is suggested. The District should form a sub-committee to develop an Aquatic Plant Management plan which will coordinate private lakeshore sprayings and whole lake navigation treatments. Options should be developed to protect sensitive areas such as deed restrictions, buffers, conservation easements, purchase or other innovative motives. Goals, objectives, financial budgets, a rapid response plan to exotics, and public use will need to be documented and put into a plan. A large scale lake planning grant could be pursued by the District to help develop the Apple River Flowage Aquatic Plant Management plan. A watershed assessment identifying implemented and needed BMPs could also improve the water quality of the Apple River.

Regarding stormwater runoff, the City of Amery recently received two DNR grants to address the quality of stormwater flowing into water bodies. A Lake Management Grant will draw up a stormwater plan taking steps to prevent degradation of the water quality of Amery Lakes, and a Stormwater Planning Grant will develop ordinance language to meet storm water plan objectives. Reduced watershed inputs into the Apple River and other lakes will certainly improve water quality and habitat quality.